Non-simultaneous spell-out in clausal and nominal domain

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1. Introduction

- phases have interface realities Chomsky (2004, 2005)
  - they are propositional elements
  - they have certain PF independence

- These interface units are created by Spell-Out
  - Whatever gets shipped to the interfaces at one go, is a unit at the relevant interface

- by looking at the PF and LF properties of various syntactic objects, we can determine their phasal composition (cf. Matushansky 2003)

- the plan is to figure out what other projections behave as phases (apart from CP and *v*P) and as what kind of phases do they behave
  - non-finite TP (or whatever is the top projection of an embedded non-finite clause)
    - has no FP independence (evidence mostly from Slovenian)
    - is a propositional element
  - unaccusative/raising *v*P
    - does not pass the PF phase tests
    - turns out to be a projection where a raised quantifier can get interpreted
  - KP (or whatever is the top projection of the DP)
    - is not a propositional element
    - has PF independence
  - NP/NumP or some other projection inside the DP
    - does not have PF independence
    - is the projection where quantifiers get interpreted

- This is exactly the phasal composition we need to derive
  - Total Reconstruction (of indefinites in raising constructions)
  - Quantifier Raising

- Result: a completely derivational account of Total Reconstruction and Quantifier Raising

1.1. (Non-)Simultaneous spell-out/phases

- Spell-out to the interfaces occurs simultaneously (Chomsky 2004, Legate 2003, 2004)

  - **Megerdoomian** (2003) (working on Armenian and Japanese causatives)
    - LF-Spell-Out is universal, applies at strong phases
    - PF-Spell-Out is subject to parametric variation
  - **Felser** (2004) (analyzing *wh*-copy construction)
    - LF spell-out restricted to candidates that are convergent
    - "PF-Spellout may apply automatically to partial phrase markers that form relatively independent phonological or processing units"
  - **Wurmbrand and Bobaljik** (2003) (earlier version of B&W 2006)
    - LF phases can be induced by a lexical verb
  - **Marušič and Žaucer** (to appear) (Slovenian/Slavic FEEL-LIKE construction)
    - A verb composed from elements belonging to two different semantic units
    - What gets spelled-out to LF doesn't get spelled-out to PF

2. Phases in the clasual domain

- standardly:
  - CP and active *v*P

- Uriegereka & Martin (1999): finite TP is also a phase
  - Gallego (2006), TP is only an apparent phase, because of phase-sliding

2.1 Non-finite TP (the topmost projection in non-finite complement clauses)

- what is the topmost projection?
  - Wurmbrand (2001) – at least four different types of non-finite clauses
    - Restructuring infinitives could be only VPs,
    - Wurmbrand (2006) – non-finite clauses don't have a TP

- following Marušič (2003, to appear): non-finite clausal complements lack CP - a strong phase

2.2.1 LF phasehood

- non-finite clausal complements denote propositions
- they are opaque/intensional
  - an indefinite inside a non-finite clause can have non-specific interpretation
  - a non-denoting term does not yield falsity of the entire sentence etc.

- the scope position of a universal quantifier indicates the edge of an (LF) phase
  - the universal quantifier can be understood inside the scope of the matrix verb in (1a)
  - in (1b) the universal quantifier can take scope under or over negation (inside the lower clause)

(1) a. Vid je pozabil zapret vsa okna. *forgot* > ∀
Vid AUX forgot close$_{INF}$ all windows
"Vid forgot to close all windows."

b.? Janez se je odločil ne zapret vsa okna. *not* > ∀
Janez REFL AUX decided not close all window ∀ > *not*
"Janez decided not to close all windows."

- The universal in (1a) is understood inside the lower clause – possibly in Spec.*v*P?
  - an unaccusative verb in the non-finite complement – no *v*P
  - a quantifier can still be interpreted inside the scope of the matrix verb, (2)

(2) Meta je sklenila iti na vse koncerte / na en koncert.
Meta AUX decided go$_{INF}$ on all concerts on one concert
"Meta decided to go to all concerts / one concert" decided > all, one

- the lower clause consists of more than just the embedded VP and *v*P, (3)

(3) Peter je sklenil (bolj) pogosto obiskovati babico.
Peter AUX decided (more) often visit grandmother
"Peter decided to visit grandmother (more) often."

  - shouldn't the functional projections hosting *(more) often* of the lower clause be in the semantic computation of the lower clause, rather than in the computation of the matrix clause.

- ECM constructions, as in (4)
  - if we can interpret a DP in the region between the matrix verb and the embedded negation, it would have to be in SpecTP
  - (4), the embedded subject scopes over the embedded object scoping over negation
  - 'John expects there is someone for whom it is true that for all classes, he will not attend them'

(4) John expects some student not to attend all classes. ∃ > ∀ > not

- TP is the projections that maps to a proposition, which becomes quite obvious if one looks at modals
  - (5) are ambiguous between root and epistemic interpretation of the modal
  - Modals are propositional operators: combine with a prop. to give a prop. (Kratzer 1991)
    - Epistemic modal scopes higher then TP (cf. Cinque 1999, 2004, Butler 2003)

(5) a. You must be in the University Café right now.
b. Every student from Stony Brook must be in the University Café right now.
c. A student from Stony Brook must be in the University café right now.

- we seem to have an LF phase where we would not expect any
  - Sauerland & Elbourne (2002): TPs are also phases (both finite and non-finite)
  - Bobaljik & Wurmbrand (2005): verbs taking infinitival clausal complements induce agreement domains (loci of quantifier interpretation)

2.2.2 PF phasehood

- Assuming phonological positioning of clitics,
  - clitics move to the 2nd position inside the relevant prosodic unit.
  - Since clitics climb from non-finite clauses in Slovenian (Golden 2003, Marušič 2003)
  - there is thus no PF boundary between the two clauses that would block their fronting

- three PF phase diagnostics: *isolability*, *movement*, and *nuclear stress rule application* (Matushansky 2003, following Legate 2001, 2003),

- **Nuclear stress rule application**
  - a phonological rule that gives the nuclear stress to the right most lexical element
  - reasonable to assume it applies to a structure when it is shipped to PF, at every phase.
    - every PF phase would bring in another application of the nuclear stress rule.
    - finite clausal complementation has two intonational phrases
    - non-finite clausal complementation – only one main sentential stress, (6b,c).

(6) a. Peter je včeraj povedal **Meti**, da bo prišel na zabavo **sam**.
Peter AUX yesterday told Meta that will come to party alone
"Peter told Meta yesterday that he will come to the party alone."
b. Peter je učiri sklenil prit danes k nam na **zabavo**.
Peter AUX yesterday decided come$_{INF}$ today to us to party
"Peter yesterday decided to come today to us for a party."
c. Peter je Meti ukazal prit danes k nam na **zabavo**.
Peter AUX Meta ordered come$_{INF}$ today to us to party
"Peter yesterday decided to come today to us for a party."

- **Movement**
  - If a phrase is a phase, then it should have the freedom to be movable
  - to participate in various types of (potentially) PF movements
  - Matushansky (2003): TP is not a PF phase ((7) from Matushansky 2003, (19) - (23))
    - TP cannot be extraposed, (7b).
    - TP cannot be topic left-dislocated, (7c).
    - TP cannot take part in pseudo-clefting, (7d).

(7) a. It surprised Ron [$_{CP}$ that Hermione was interested in someone else].
b.*It surprised Ron [$_{TP}$Hermione (to) be interested in someone else].
c.*[Hermione (to) be interested in Viktor], who could imagine **it**.
d.*What Goneril seemed was [$_{TP}$to fear King Lear].

- Slovenian is very permissive when it comes to clause internal scrambling, (8)
  - Normally, only one element can scramble over a finite CP, (9)

(8) Medveda je že včeraj po gozdu brez puške iskal Peter.
Bear AUX already yesterday around forest without gun search Peter
"Peter looked for a bear around the forest with no gun already yesterday."

(9) a. Janez pravi, da je Meta pozabla it včeraj domov
Janez says that AUX Meta forgot go$_{INF}$ yesterday home
"Janez says that Meta forgot to go home yesterday."
b. Domov, pravi Janez, da je Meta pozabla it včeraj.
home says Janez that AUX Meta forgot go$_{INF}$ yesterday
c. Pozabla it domov pravi Janez, da je Meta včeraj.
forgot go$_{INF}$ home says Janez that AUX Meta yesterday
d.*Janez pozabla it domov, pravi, da je Meta včeraj.
Janez forgot go$_{INF}$ home says that AUX Meta yesterday
e.*Domov Janez včeraj pravi, da je Meta pozabla.
home Janez yesterday says that AUX Meta forgot

- But this multiple scrambling is available in non-finite complementation
  - (10a) is the basic sentence with the neutral word order
  - the difference among (10b-j) is stylistic

(10) a. Peter je včeraj v gostilni pozabil **povabit Vida na žur**.
Peter AUX yesterday in pub forgot invite$_{INF}$ Vida to party
"Yesterday in the pub, Peter forgot to invite Vid to the party."
b. **Vida** je Peter **na žur** včeraj v gostilni **povabit** pozabil.
Vid AUX Peter to party yesterday in the pub invite$_{INF}$ forgot
c. **Na žur** je Peter **Vida** včeraj v gostilni **povabit** pozabil.
to party AUX Peter Vid yesterday in the pub invite$_{INF}$ forgot
d. **Vida** je **na žur** Peter včeraj v gostilni **povabit** pozabil.
Vid AUX to party Peter yesterday in the pub invite$_{INF}$ forgot
e. Peter je **povabit Vida na žur** včeraj v gostilni pozabil.
Peter AUX invite$_{INF}$ Vid to party yesterday in pub forget
f. **Povabit** je **Vida na žur** Peter včeraj v gostilni pozabil.
invite$_{INF}$ AUX Vid to party Peter yesterday in pub forget
g. **Povabit** je **Vida** Peter **na žur** včeraj v gostilni pozabil.
invite$_{INF}$ AUX Vid Peter to party yesterday in pub forget
…

- semantically vacuous: pronoun is bound by the originally c-commanding quantifier, (11)

(11) a. [Vsak bolan otrok]$_i$ je ukazal sestri **prinest kosilo v njegovo$_i$ sobo**
Every sick child AUX convinced sister bring$_{INF}$ lunch in his room
"Every sick child ordered his sister to bring lunch to his room."
b. **Kosilo** je ukazal sestri **v njegovo$_i$ sobo prnest** [vsak bolan otrok]$_i$.
c. **V njegovo$_i$ sobo** je sestri **kosilo** ukazal **prnest** [vsak bolan otrok]$_i$.
d. **V njegovo$_i$ sobo** je [vsak bolan otrok]$_i$ sestri **kosilo prnest** ukazal.
…

- Multiple scrambling is acceptable only with special intonation
- It is subject to total reconstruction
  - Following Sauerland & Elbourne (2002): only PF movements totally reconstruct
  - We are talking about a PF movement
  - PF movements are most reasonably limited to a PF unit: no unit → no spell-out

- Finite TP is the typical locus of the EPP – the edge feature
  - Non-finite TPs do not have EPP (nothing visible is ever in their Spec) (cf. Castillo et al. 1999, Bošković 2002 etc.)
- Finite TP is the projection of agreement and NOM case assignment (parallel to *v*P)
  - Non-finite TP that doesn't assign NOM case (NOM in Icelandic and Slavic is default)
  - No agreement with the subject in non-finite clauses

2.3 Unaccusaitve/raising vP

- *v*P is standardly a phase
  - completes the argument structure (~LF)
    - so does the unaccusative *v*P
  - assigns accusative case (~PF)
    - not the case for unaccusative *v*P

2.3.1 LF phasehood

- Legate (2003): raising and unaccusative/passive *v*P are phases
  - Parts of a moved *wh*-phrase can get interpreted in the intermediate raising Spec*v*P positions, suggesting the *wh*-phrase moved through them.

- Sauerland (2003): an intermediate scope position in raising structures → raising *v*P is a phase
  - universal quantifier of (12) falls under the scope of NEG yet it still binds the pronoun, showing it is interpreted higher than the internal object of the raising verb
  - a position higher then the internal object and lower then negation → raising Spec.*v*P

(12) Every child$_i$ doesn't seem to his$_i$ father to be a genius. *not* > ∀ > *his*

- test can be replicated on other raising predicates like *likely* etc.
  - the test works also with floating quantifiers, (13a)
  - presence of the quantifier suggests the DP moved through *v*P (cf. Sportiche 1988)
  - the universal quantifier in (13b,c): scopes under negation and above *likely*

(13) a. Children$_i$ don't all seem to their$_i$ parents to be smart.
b. Children don't all seem to be in the room.
c. Austrians aren't all likely to be placed among the top 10.

2.3.2 PF phasehood

- long-distance agreement in English raising constructions
  - the DP inside the embedded non-finite clause agrees with the matrix T
  - LF phase boundary between DP and matrix T → no agreement with LF features
  - DP has PF related plural features & agreement is observed in (14) → DP & T must be PF phasemates

(14) There seem to be mosquitoes all around me.

- (PF) **movement** tests
  - raising *v*Ps cannot participate in pseudo-clefting, (15b-d),
  - predicate fronting, (16b-e)
  - though constructions, (17b).

(15) a. What Goneril did was [$_{vP}$ blind Gloster]
b.*What there was was [$_{vP}$ seem to be a man in the garden].
c.* What there was was [likely to be a man in the garden].
d.*?What somebody was was [likely to be in the garden].

(16) a. Mary said she would kick her, and [kick her] she did.
b.*Bill said Jill would be likely to be inside and [likely to be inside] she was.
c.* John said Mary would seem to be tired and [$_{vP}$ seem to be tired] Mary did.

d.*John said Mary would be believed to be able to drink 4 beers in 10 minutes, and
[$_{vP}$ believed to be able to drink 4 beers in 10 minutes] she was.
e.* Bill said someone would be likely to be inside and [likely to be inside] somebody was.

(17) a. [$_{vP}$ Marry her lover] though Juliet did, the results were disastrous.
b.*[$_{vP}$ Seem to be tired] though Mary did, she still had to work.

- raising *v*Ps are not PF phases – there's no Spell-out to PF at that point.

3. Phases in the nominal domain

3.1 DP (topmost projection – KP)

- Svenonius (2004): two phases in DP, parallel to CP and *v*P
- Matushansky (2003): PF and LF phase diagnostics, give opposite results for DP

3.1.1 LF phase edge

- 2 tests for LF phase edge
  - *phases have the status of a "proposition"*
  - *QR and successive cyclic wh-movement can target edges of phases*.

- Propositions are syntactic objects with the semantic type <t>
  - DPs are never of the semantic type <t>

- Sauerland (2005): DP is not a scope island … QR never targets Spec.DP
  - Inverse scope linking, (18), a quantified noun phrase embedded inside another one
  - [QNP1 [QNP2]] is interpreted as QNP2 > QNP1

(18) Tom read [DP one book by [DP every linguist]].

- the following argument from Sauerland (2005)
  - scope linking constructions in the object position of an intensional verb
  - indefinites are good for testing narrow scope with respect to an intensional verb
    - (19) has two readings corresponding to the two relative scopes of the indefinite and the intensional verb

(19) Jon wants to marry someone from Valencia.

  - Plurals are good to test wide scope relative to an intensional verb
    - (20) has two readings:
    - narrow scope of the plural → John wants to marry both women
    - wide scope → John wants to marry either of the two women, not both of them
      - wide scope requires QR of the plural DP over the intensional verb
      - (21) is necessarily understood with the narrow scope (CP blocks QR)

(20) John wants to marry these two women from Nicosia.
(21) Sue desires that John marry these two women from Nicosia. → John marries twice

- a plural DP inside an indefinite DP, (27)
  - the embedded QNP *these two countries* can scope higher than *want*, and at the same time *want* scopes higher than *someone*. ((22), from Sauerland 2005, p. 306, ex. (8))

(22) a. *Mary wanted to marry someone from these two countries.*
b. 'For these two countries, there's someone that Mary wanted to marry.'
(two > someone > want)
c. 'Mary's desire: For these two countries, marry someone from that country.'
(want > two > someone)
d. 'For these two countries, Mary had the desire to marry someone from that country.'
(two > want > someone)

- Same effect can be replicated in Slovenian
  - (23) has the interpretation where Mary wanted to marry only once not caring who she marries as long as that person is from one of the two countries she specified.

(23) Marija je hotela poročit nekoga iz teh dveh držav
Mary AUX wanted marry someone from these two countries
'Marija wanted to marry someone from these two countries.'

- Sauerland (2005): DP internal QNP_e never takes scope at the DP edge
  - **No scope taking, no (LF) phase edges**

- invert scope constructions with three QNPs

(24) Some exit from [every freeway in [a large California city]]
Every book by [some author from [some Eastern European country]]

(25) $[_{QPm}$ Q $[_{NP}$ … $[_{QPe/m}$ Q $[_{NP}$ … $[_{QPe}$ Q $[_{NP}$ …]]]]]]

- DP-only scoping predicts that a QP_e could not QR directly to QP_m
  - No way to get the scope order in (26)

(26) $*QP_e > QP_m > QP_{e/m}$

- This prediction seems to be wrong.
  - (27), base order refers to no key since a door can only be located in one house
  - Situation: Vili is a building manager and has to take care of several buildings
  - Most natural reading: the most embedded QP_e scopes over the main QP_m.
    - Vili has a master key for each building he takes care of.

(27) a. Viliju sem dal en ključ za vsa vrata v vseh njegovih stavbah.
ViliAUX give onekey for all door in all his buildings
"I gave Vili a key for all doors in all his buildings."
b. Vili got a master key that opens all doors for each house.
c. Vili got a single master key for all the doors in all his houses.

- DP is indeed not a scope island
  - Following Sauerland: QR never targets the DP edge → **DP doesn't spell-out to LF**

3.1.2 PF phase edge

- Matushansky (2003) shows DP is a phase according to the PF diagnostics

- movement structures that possibly do not involve purely syntactic operations
  - (examples (28) through (33) are from Matushansky 2003, p. 10-12).
  - *Topic left dislocation* applies to DPs and CPs (but it doesn't work with *v*Ps)

(28) a. $[_{CP}$ That Hermione was interested in someone else], who could imagine **it**?
b. $[_{DP}$ Hermione's interest in someone else], who could imagine **it**?

  - *Clefting* does not apply to *v*Ps, but it again applies to both CPs and DPs

(29) a. It's $[_{CP}$ that Desdemona was faithful] that Othello doubted.
b. It's $[_{DP}$ Desdemona's faithfulness] that Othello doubted.

  - *Pseudo-clefting* applies to all three standard phases: *v*P, CP, and DP

(30) a. What King Lear said was $[_{CP}$ that Cordelia was no longer his favorite daughter].
b. What Goneril did was $[_{vP}$ blind Gloster].
c. What Regan listened to was $[_{DP}$ Goneril's suggestions].

- *Predicate fronting*: works for *v*Ps and DPs (not entirely applicable to CPs)

(31) a. Juliet promised that she would marry Romeo, and [$_{CP}$ that she would marry Romeo] her parents didn't think/know.
b. Goneril said she would pluck out Gloster's eyes, and [$_{vP}$ pluck out his eyes] she did.
c. Regan is called the villain of the play and [$_{DP}$ the villain of the play]$_i$ she is t_i

- *Though-constructions* (exclude CPs) apply to *v*Ps and DPs

(32) a. [$_{vP}$ Marry her lover] though Juliet did, the results were disastrous.
b. [$_{DP}$ The villain of the play] though Regan is t_i, I still like her best.

- **movement diagnostics confirm PF phasehood of DPs**

- Nuclear stress rule also argues for the PF phasehood of DPs
  - assigns primary stress to the rightmost element in the object DP and to the preposition left behind when this rightmost element moves out

(33) a. Balthasar dislike rumors about **Justine**.
b. Who did Balthasar dislike rumors **about**?

- DPs pass all the proposed PF diagnostics for phases
  - safe conclusion: DP is a PF phase (see Matushansky 2003 for more discussion and skepticism).

- Thus we have shown a **DP spells-out to PF, but not to LF**

4. Coming from the other end

- *Reconstruction* - an item is pronounced higher then where it is interpreted.
  - spell-out to LF happening prior to the spell-out to PF

- *Covert movement* – an item is pronounced lower then where it is interpreted
  - spell-out to PF happening prior to the spell-out to LF

4.1 Total Reconstruction

- the entire phrase reconstructs from its surface position to a lower position, (40)

(34) *Someone from Stony Brook is likely to be in Country Corner right now*.

- copy theory of movement (Chomsky 1995 …)
  - interpret only the lower copy of the moved subject and pronounce only the higher copy
  - deleting a created copy is an unwanted backstep – undoing (cf. Sauerland & Elbourne 2002)

- PF movement (Sauerland & Elbourne 2002, Aoun & Benmamoun 1998)
  - wrongly predicts that reconstructing DPs will not interact syntactically with the matrix clause.

(35) a. Scissors *is/are likely to be in the drawer. likely > ∃
b. There *is/are likely to be scissors in the drawer. likely > ∃
(36) a. A northern team is likely to be in the final. likely > ∃
b. There is likely to be a northern team in the final. likely > ∃
(37) a. A northern team are likely to be in the final. ∃ > likely
b.*There are likely to be a northern team in the final.

- Sauerland and Elbourne claim group names like *a northern team* only trigger plural agreement when they are also interpreted inside the matrix clause
  - AGREE from inside the lower clause is blocked by the TP phase
  - How come *scissors* are interpreted low while triggering plural agreement high?

- "PF-movement" as syntactic movement of isolated P & F features
  - LF-only spell-out: P features remain available for movements after *S* features get spelled-out

- non-finite TP and raising *v*P are LF-only phases
  - Once the matrix *v*P is completed, the entire lower TP, including its specifier, spells-out to LF
    - LF related features of the entire TP are inaccessible
    - all the PF-related and formal features remain active in the derivation
  - partially spelled-out DP checks the EPP of the matrix clause and triggers plural agreement
  - the subject gets shipped to LF inside the lower clause → narrow scope with respect to *likely*
  - the subejct gets shipped to PF after it moves higher into the matrix clause

(39)a.	*S*											*[$_{vP}$ DP v*	*[$_{VP}$ V*	*]]*
	P											[$_{vP}$ DP *v*	[$_{VP}$ V	]]
b.	*S*							*[$_{TP}$ DP*	*T*	*[$_{vP}$*	*v*			*]]*
	P							[$_{TP}$ DP	T	[$_{vP}$	*v*			]]
c.	*S*			*[$_{vP}$ v*	*[$_{VP}$ V*	*[$_{TP}$ DP*	*T*	*—spelled-out—*						*]]]*
	P			[$_{vP}$ *v*	[$_{VP}$ V	[$_{TP}$ DP	T	[$_{vP}$	*v*					]]]]
d.	*S*	*[$_{TP}$*	*T*	*[$_{vP}$ v*		———	*spelled-out*	———						*]]]]*
	P	[$_{TP}$ DP$_i$	T	[$_{vP}$ *v*	[$_{VP}$ V	[$_{TP}$ t$_i$	T	[$_{vP}$	*v*					]]]]]
e.	*S-interpretation:*				*V*	*[$_{TP}$ DP …*								
	P-interpretation:	DP			V	…								

- the crucial step
  - (39d), the P-features of DP that remain visible since nothing gets spelled-out to due to PF and move to the edge of the matrix TP. They have thus split from the *S*-features of the same DP

3.2 Quantifier Raising

- Covert movement is probmelatic
  - If phase boundaries freeze all syntactic movements, nothing should escape
  - If something escapes, such movement can only be an instance of purely LF movement.
  - But covert movement is typically argued to be syntactic.

- Nissenbaum (2000): *covert movement* is movement after Spell-Out
  - If Spell-out applies simultaneously to both interfaces, how can you move after Spell-out
  - Nissenbaum (2000), Cecchetto (2004): only Spell-Out to PF is cyclic.

- copy theory of movement (Bobaljik 1995):
  - delete the lower LF copy and the upper PF copy
  - deletion of a created copy is an unwanted undoing operation.

- **non-simultaneous spell-out**
  - a syntactic object that has been previously spelled-out to PF now participates in the derivation with its as yet unspelled-out *S* & F features
- something special about the DP structure
  - a top projection of the DP should spell-out to PF but not to LF
    - the LF related features of the DP could move covertly
- This is exactly what we have seen to be the phasal composition of DPs
  - DP is a phonological/PF phase, but not a semantic/LF phase.
- The highest phase inside a DP labeled KP in (40) (following Bittner and Hale 1996), is not an LF phase

  (40) [$_{KP}$ K [$_{DP}$ D [$_{NP}$ N]]]

- EPP is a PF condition (van Craenenbroeck & den Dikken 2005) → defines PF phase edges
- Do LF phase edges have anything comparable?
  - there is an EPP$_{LF}$
- a [+WH] feature determines the scope of a *wh*-word
  - a [+Quant] feature determines the scope of a quantifier
  - This feature attracts the (LF part of the) quantifier / [+Q], a formal feature of the quantifier

- a sample derivation in (41)
  - a prefabricated KP, (41a)
  - KP is merged with the verb in (41b), only the *S* & F features of the quantifier are visible
  - At the *v*P phase, the *S* & F-features of *DP* are visible, only *S* & F-features of the DP can move
  - Same thing happens at TP
  - the quantified object DP gets interpreted higher than the subject,

(41)a.	*S*									$[_{KP}[_{DP}\ D$	*NP*	*]]*
	P									$[_{\mathbf{KP}}[_{DP}$ D	NP	]]
b.	*S*							$[_{VP}\ V$	$[_{KP}[_{DP}\ D$	*NP*	*]]]*	
	P							[VP V	$[_{\mathbf{KP}}$ K		]]	
c.	*S*				$[_{\mathbf{vP}}[_{DP}\ D$	*NP* $]_i$	*v*	$[_{VP}\ V$	$[_{KP}\ K$	t_i	*]]]*	
	P				$[_{\mathbf{vP}}$		*v*	[VP V	[KP K	–spelled-out–	]]]	
d.	*S*		$[_{TP}\ KP\ T$	$[_{\mathbf{vP}}[_{DP}\ D$	*NP]*		*v*	——spelled-out——			*]]*	
	P		[TP KP T	$[_{\mathbf{vP}}$			*v*	——spelled-out——			]]	
e.	*S*	$[_{TP}[_{DP}\ D$	*NP* $]_i$	$[_{TP}\ KP\ T$	$[_{\mathbf{vP}}$	t_i	*v*	——spelled-out——			*]]]*	
	P	$[_{TP}$		[TP KP T	$[_{\mathbf{vP}}$		*v*	——spelled-out——			]]]	
f.	*S-interpretation*	DP_{OBJ}	DP_{SUB}									
	P-interpretation			KP_{SUB}	KP_{OBJ}							

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